Abstract

A method, system, and medium of modeling and/or for controlling a manufacturing process is disclosed. In particular, a method according to embodiments of the present invention includes the step of identifying one or more input parameters. Each input parameter causes a change in at least two outputs. The method also includes the step of storing values of the identified inputs and corresponding empirical output values along with predicted output values. The predicted output values are calculated based on, in part, the values of the identified inputs. The method also includes the step of calculating a set of transform coefficients by minimizing a score equation that is a function of differences between one or more of the empirical output values and their corresponding predicted output values. The method further includes the steps of receiving a new set of values for the identified inputs, transforming the new set of values for the identified input using the set of coefficients, and calculating a set of predicted output values using the transformed input values.